

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior listings of claims in the application.

LISTING OF CLAIMS

1. *(Original)* A memory function body comprising:
a first conductor and a second conductor;
a medium that is formed between the first conductor and the second conductor
and made of a first material; and
at least one particle that is formed in the medium, covered with a second
material, and made of a third material,
the second material being a material that functions as a barrier against passage
of electric charges, and
the third material being a material that has a function to retain electric charges.
2. *(Original)* The memory function body as claimed in claim 1, wherein the first
material and the second material are different insulators, and the third material is a
conductor.
3. *(Original)* The memory function body as claimed in claim 2, wherein the
second material is a material obtained by making the third material insulative.
4. *(Original)* The memory function body as claimed in claim 3, wherein the
second material is a material obtained by oxidizing or nitriding the third material.

5. *(Original)* The memory function body as claimed in claim 1, wherein the first material is a silicon oxide or a silicon nitride, the second material is a semiconductor oxide or a metal oxide, and the third material is a semiconductor or a metal.

6. *(Original)* The memory function body as claimed in claim 4, wherein the second material is aluminum oxide, and the third material is aluminum.

7. *(Original)* The memory function body as claimed in claim 5, wherein the second material is aluminum oxide, and the third material is aluminum.

8. *(Original)* The memory function body as claimed in claim 1, wherein the first conductor is a silicon substrate, and the medium is a silicon oxide or a silicon nitride.

9. *(Original)* A particle forming method, comprising:
implanting a substance for forming one or more particles into an insulator by an ion implantation method;
forming conductive particles from the substance implanted in the insulator; and
making the conductive particles insulative at a periphery thereof.

10. *(Original)* The particle forming method as claimed in claim 9, wherein the substance for forming conductive particles is implanted into the insulator from a direction that makes an acute angle with respect to a surface of the insulator.

11. *(Original)* The particle forming method as claimed in claim 9, comprising ionizing the substance to be implanted into the insulator for forming the conductive particles into negative ions.

12. *(Original)* The particle forming method as claimed in claim 9, wherein after implanting the substance for forming one or more conductive particles into the insulator by the ion implantation method, the particle forming method further comprises:
etching the insulator from a top surface to a prescribed depth.

13. *(Original)* The particle forming method as claimed in claim 9, wherein said forming conductive particles from the substance implanted in the insulator comprises performing a heat treatment for a time shorter than 24 hours.

14. *(Original)* The particle forming method as claimed in claim 9, wherein said making the conductive particles insulative at a periphery thereof comprises oxidizing or nitriding the periphery of each conductive particle.

15. *(Original)* A particle forming method, comprising:
diffusing a substance for forming one or more conductive particles into an insulator by a solid phase diffusion method;
forming conductive particles from the substance diffused in the insulator; and
making the conductive particles insulative at a periphery thereof.

16. *(Original)* The particle forming method as claimed in claim 15, wherein said making the conductive particles insulative at a periphery thereof comprises oxidizing or nitriding the periphery of each conductive particle.

17. *(Original)* The particle forming method as claimed in claim 15, wherein said forming conductive particles from the substance implanted in the insulator comprises performing a heat treatment for a time shorter than 24 hours.

18. *(Original)* A particle forming method, comprising:
forming an insulator on a semiconductor substrate;
implanting a substance that contains a conductive element into the insulator by a negative ion implantation method; and
subjecting the insulator, in which said substance has been implanted, to heat treatment in an oxidizing atmosphere or a nitriding atmosphere.

19. *(Original)* The particle forming method as claimed in claim 18, wherein said implanting a substance that contains a conductive element into the insulator comprises implanting the substance from a direction that makes an acute angle with respect to a surface of the insulator.

20. *(Original)* The particle forming method as claimed in claim 18, wherein the heat treatment in the oxidizing atmosphere or the nitriding atmosphere is performed for a time shorter than 24 hours.

21. (*Currently Amended*) A memory device including a field-effect type transistor that employs the a memory function body as claimed in claim 1 comprising:
a first conductor and a second conductor;
a medium that is formed between the first conductor and the second conductor
and made of a first material; and
at least one particle that is formed in the medium, covered with a second
material, and made of a third material,
the second material being a material that functions as a barrier against passage
of electric charges, and
the third material being a material that has a function to retain electric charges.

22. (*Currently Amended*) A semiconductor device including a memory circuit in ~~which the~~ having memory devices therein, each of which ~~as claimed in claim 21 are~~
~~integrated~~ includes a field-effect type transistor that employs a memory function body
comprising:

a first conductor and a second conductor;
a medium that is formed between the first conductor and the second conductor
and made of a first material; and
at least one particle that is formed in the medium, covered with a second
material, and made of a third material,
the second material being a material that functions as a barrier against passage
of electric charges, and

the third material being a material that has a function to retain electric charges.

23. (*Currently Amended*) Electronic equipment including the a semiconductor device as claimed in claim 22 including a memory circuit having memory devices therein, each of which includes a field-effect type transistor that employs a memory function body comprising:

a first conductor and a second conductor;

a medium that is formed between the first conductor and the second conductor and made of a first material; and

at least one particle that is formed in the medium, covered with a second material, and made of a third material,

the second material being a material that functions as a barrier against passage of electric charges, and

the third material being a material that has a function to retain electric charges.